

AQUAFRESH

WATERMAKERS



AFDXXX(X)AC Series

Operators Manual

Please read this manual thoroughly before attempting to operate your water maker.

E & O E

Danger



High Voltage

AFDXXX(X) Series water makers operate on a 240vAC electricity supply and must not be opened, disassembled or repaired by unauthorised or unqualified service people.

Improper operation or repair of your water maker could result in serious injury or death

Danger



Safety Information

The water maker is a high pressure device operating at up to 1000psi and must not be disassembled or repaired by unauthorised or unqualified service people.

Improper operation or repair of your water maker could result in serious injury or death

Before attempting to operate your water maker ensure that seawater intake is fully open and that all pre-filters are clean and unblocked.

Visually check the unit before running for leaks, loose fittings and corrosion.

(Do Not Operate Water Maker If You Are Unsure)

Always ensure the water maker is running at the desired pressure for your area of operation and seawater temperatures (refer to full manual). If unsure please set running pressure to 825 psi. The adjustment is made on the water maker, not at the control panel.

Never Attempt To Run The Water Maker Above 950psi.

AFD Series water makers are not designed for and will be permanently damaged if operated in brackish or freshwater areas.

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1. Screen Operation

Aquafresh Touchscreen:



Screen Operation:

Navigating your Aquafresh Touchscreen is very simple.

To move between pages simply use the  and  arrows

To enter times and/or operate functions associated with each function page use the touchscreen.

To STOP the unit at any time press  on the Membrane Panel or touchscreen.

NOTE:

The screen has a sleep/timeout facility after 10 minutes, you must wake the screen by a single touch to any part of the touchscreen before it will respond to commands.

2. Function Page Layout

Function Page Order



Initialisation Screen



Ready Screen



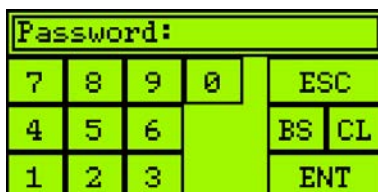
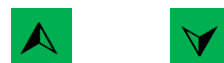
Fresh Water Flush



Maintenance



Screen Settings



Engineering Screen

Password Protected, NOT FOT CUSTOMER USE

3 Starting

Start-up screen. during power up



Initialisation Screen



Unit Stopped

Press START ICON to start water maker

The following screens will then appear



SAFI Valve position check

This screen is only visible if the flush option is installed



Low Pressure Pump Started

3 minutes delay before High Pressure pump starts



High Pressure Pump Started

Short delay before Salinity Module Initialises

Starting (Continued)



Salinity Module Initialisation

Short delay while salinity module is calibrated



Unit running but not making water

Short delay while membranes initialise



Unit running and producing water

Animated screen indicates water production

CAUTION

Always ensure the watermaker is running at the desired pressure for your area of operation and seawater temperatures (refer to full manual). If unsure please set running pressure to 825 psi.

The adjustment is made on the watermaker, not at the control panel

4. Stopping

Unit Running Screen Displayed:



Unit running and producing water

Animated screen indicates water production

Press STOP ICON (or  button) to stop watermaker

The unit will stop immediately

The following screens will then appear



Unit Stopped, Restart Inhibited

Short delay while internal pressures equalise.



Unit Stopped, Ready, Press To Start

5. Manual Freshwater Flushing (option)

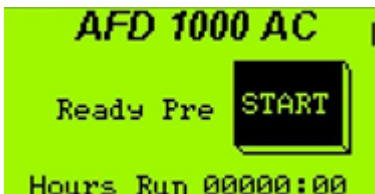
SPECIAL NOTES: This systems requires that the vessels pressurised fresh water supply is switched on and that there is plenty of freshwater available to complete the flushing cycle for however long it may be required.

This system will use freshwater from your vessels water tanks and will use approximately 3-7 litres of water per minute.

At no time should chlorinated water be allowed to enter the watermaker via the vessels freshwater system and it is essential that the carbon filter is replaced regularly.

If your watermaker is fitted with the optional freshwater flush system it is possible to initiate a timed freshwater flush from the touchscreen

With the machine in the stopped mode:



Unit Stopped

Press the  ARROW Membrane button

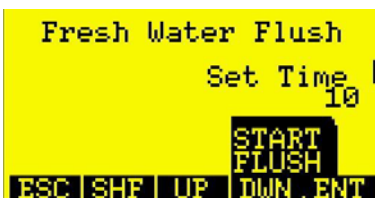


Fresh Water Flush Set Time

Enter desired flush time between 2 and 9 minutes

Touch the "Set Time" area on the screen and enter the flush time required using the ESC, SHIFT, UP, DOWN and ENTER buttons on the touch screen

Note: The system will not accept less than 2 minutes as a flush time.



Start Flush

Press START FLUSH ICON to initiate the timed flush.



Flush Time Remaining

Once the flushing is complete the unit will return to the normal "Stopped" screen

Note: The unit flushing can be stopped at any time by pressing STOP

Manual Freshwater Flushing (continued)



Unit Stopped, Restart Inhibited

Short Delay while internal pressures equalise.



Unit Stopped

6. Setting Up Freshwater Auto Flush (option)

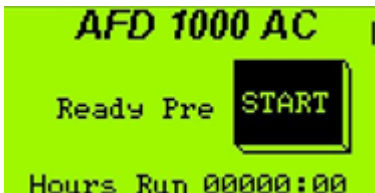
SPECIAL NOTE: This systems requires that the vessels pressurised fresh water supply is switched on and that there is plenty of freshwater available to complete the flushing cycle for however long it may be required.

This system will use freshwater from your vessels water tanks and will use approximately 3-7 litres of water per minute

At no time should chlorinated water be allowed to enter the water maker via the vessels freshwater system and it is essential that the inline carbon filter is replaced regularly.

If your water maker is fitted with the optional freshwater flush system it is possible to initiate an automatic freshwater flush from the touchscreen

With the machine in the stopped mode:



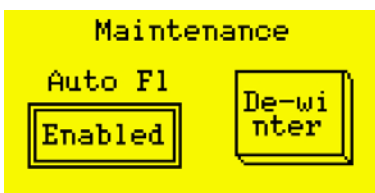
Unit Stopped

Press the  ARROW Membrane button twice



Maintenance Screen Auto Flush OFF

Press OFF ICON



Maintenance Screen Auto Flush ENABLED

With Auto Flush enabled the unit will automatically flush the water maker upon stopping in normal mode and every 7 days for 4 minutes each time.

CAUTION!:

This feature is designed to be used while the boat is occupied but the water maker is not in regularly use i.e when living aboard in harbour

Any unattended automated operation of complex machinery carries a risk. Reliable operation of this feature is dependent on other vessels systems being available and fault free.

Aquafresh Watermakers does not recommend the use of this feature when the boat is left unattended for extended periods

Setting Up Freshwater Auto Flush (continued)

Should power to the water maker be interrupted at any time Auto Flush Enable feature will be cancelled.

Press the  ARROW Membrane button twice to return to the normal screen



7. Winterising

For winterising options please see full service manual for details.

8. De-winterising

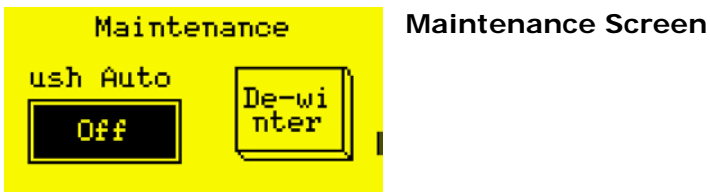
CAUTION: Observe all precautions for handling the chemical cleaning or preservatives that may have been used in your system.

Ensure the watermakers flushing lever controls are set to normal positions for seawater intake and **overboard discharge** and that any chemical cartridges are removed and replaced with standard filters.

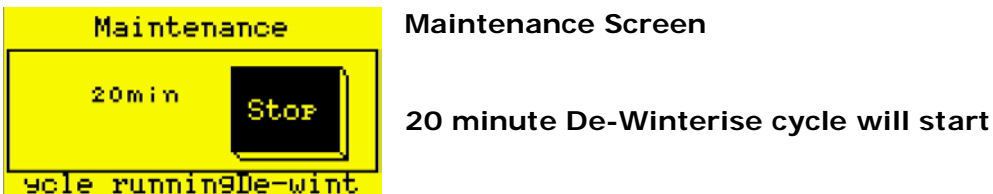
With the machine in the stopped mode:



Press the  Membrane button twice



Press DE-WINTERISE ICON



Note: The unit de-winterising can be stopped at any time by pressing STOP



NOTE: In this mode the watermaker will run for 20 minutes.

This cycle ensures any preservative or cleaning chemicals present are flushed overboard.

It is effectively a high pressure flush 'overboard' but it will not allow the vessels to become pressurised thus no fresh water will be produced.

After the full cycle the vessels will be clean and free from chemicals used in preservation.

Following the De-winterising process watermaker is now ready to use as normal.

9. Errors, Faults and Messages

Your watermaker can display various message that can help diagnose maintenance issues including operational errors and faults

Tank Full (Optional):



Tank Full Shutdown

Press ACCEPT to clear

If your watermaker is fitted with the optional tank full switch the unit will automatically stop once your tanks are full.

The above message will be displayed. Press the ACCEPT ICON to clear the message

Change PLC Battery



Change PLC Battery

System warning message, it is very important the PLC internal battery is changed
Please refer to service manual

SAFI Valve Failure



SAFI Valve Failure

Investigate cause of alarm

Press RESET ALARM to clear

If your watermaker has the optional flush system installed this error will be displayed if a problem occurs with the SAFI valve.

Inspect. Clean. Repair or Replace SAFI valve.

Errors, Faults and Messages (continued)

Salinity Probe Error



Salinity Probe/Module Fault

Investigate cause of alarm

Press RESET ALARM to clear

This error indicates a problem with the salinity probe or module. Check probe, clean or replace probe and/or module.

Low Pressure Alarm



Low Pressure Alarm

Investigate cause of alarm

Press RESET ALARM to clear

This is a common alarm and indicates a loss of pressure in the low pressure circuit of the watermaker.

Common causes:

Blocked or closed seawater intakes.

Blocked pre-filters

Air lock in the low pressure circuit

Failure of the low pressure pump

Failure of low pressure sensor

Incorrect installation

Shipside watersystem pressure too low (only in flush mode, optional)

Incorrect installation:

Your watermaker will not function properly and may shut down and show this fault if it is supplied by an incorrect power source.

An example of this may be if an Inverter is being used to power the system. See section 4.

High Pressure Alarm



High Pressure Alarm (Optional)

Investigate cause of alarm

Press RESET ALARM to clear

Indicates over pressure in the high pressure circuit of the watermaker

Common causes:

Blockage in the high pressure circuit

Blockage in the overboard discharge

Operating pressure adjusted to high

Failure of high pressure sensor

Errors, Faults and Messages (continued)

No Fresh Water



No Fresh Water

Investigate cause of alarm

Press RESET ALARM to clear

Indicates no freshwater was produced for 1 hour

Common causes

Salinity probe failure or dirty

One or more membranes has failed

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